patient. The image information concerns a particular type of subject which is to be an object of abnormal pattern detection processing by the abnormal pattern detection processor means. The image selector means outputs the supplementary information. The abnormal pattern detection processing system also comprises an input monitor means which, when an item of image information concerning a subject which is to be an object of abnormal pattern detection processing is inputted from the image selector means, monitors that all the other items of image information concerning the same subject for the same patient which are to provide a set with the item of image information concerning the subject which is to be an object are inputted from the image selector means. When having detected that all the items of image information have been inputted, the input monitor means causes collective inputting of all these items of abnormal pattern detection processing object image information concerning the same subject for the same patient to the abnormal pattern detection processor means. With this configuration, an automatic routing function is provided which, from a number of and a variety of items of image information inputted in the random order, automatically searches out and collects the items of image information which provide a set for each particular patient, thus eliminating the need for manual operation by the operator to select and output the items of image information to be outputted to the abnormal pattern detection processor means.

### Paragraph bridging pages 16 and 17:

The abnormal pattern detection processor means may be configured as a device independent of the QAWS or constructed as a device well suited for constructing a network (refer to Japanese Unexamined Patent Publication No. 2000-126163). Specifically, as stated in Japanese Unexamined Patent Publication No. 2000-126163, it is recommended that the abnormal

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pattern detection processing system comprise image selector means which selects, among the items of image information which are inputted from an image input device, being provided with supplementary information which allows identification of the type of subject and the patient. The image information concerns a particular type of subject which is to be an object of abnormal pattern detection processing by the abnormal pattern detection processor means. The image selector means outputs the supplementary information. The input monitor means which, when an item of image information concerning a subject which is to be an object of abnormal pattern detection processing is inputted from the image selector means, monitors that all the other items of image information concerning the same subject for the same patient which are to provide a set with the item of image information concerning the subject which is to be an object are inputted from the image selector means. When having detected that all the items of image information have been inputted, the input monitoring means causes collective inputting of all these items of abnormal pattern detection processing object image information concerning the same subject for the same patient to the abnormal pattern detection processor means.

### Paragraph bridging pages 20 and 21:

To a network 400 as shown in the figure, a CT device, an MRI device, and a CR device are connected as an image input device 430, and CRTs and laser printers are connected as an image output device (image display means) 440. In addition, to this network 400 are connected a QAWS 410 to which all the items of image information inputted to the network 400 from the image input device 430 are inputted and which stores and keeps all these items of image information for collective control; a computer-aided image assessment device 420 which performs a variety of automatic assessments on the basis of the inputted image information; a

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reporting device to which a pattern reading report representing a comment as a result of reading an image outputted to the image output device 440; and a server (large-capacity hard disk) 40 as memory means which stores the result of detection processing in an abnormal pattern detection system 100 (later described) and information (a pattern reading report) inputted from the reporting device 450, relating them to each other.

#### Paragraph bridging pages 26 and 27:

Here, as an output layout of the abnormal patterns detected by the abnormal pattern detection processor means 30 and the original image, a style in which images highlighted, enlarged or otherwise processed for the abnormal patterns are display-outputted, and overlaid on part of the entire image is adopted, as shown in FIG. 2A or FIG. 2B. In other words, it provides a layout with which, in the right half of the output screen for the image output device, the original image P for the right side breast and the enlarged views W1 to W4 of the affected part images corresponding to a plurality of abnormal pattern images P1, P11, P21, and P31, respectively, are displayed, while in the left half of the output screen, the original image P' for the left side breast and the abnormal pattern images are displayed (the left half is partly omitted), which is a style in which, as shown in FIG. 2A, the detected abnormal patterns are outputted, being overlaid on part of the entire image P, with the sizes of the enlarged views W1 to W4 of the affected part images being set so that they are all equal to one another, or which is a style in which, as shown in FIG. 2B, the detected abnormal patterns P1 to P4 are outputted, being overlaid on part of the entire image P, with the sizes of the enlarged views W1 to W4 of the affected part images being set so that they correspond to the respective sizes of the detected abnormal patterns P1 to P4

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#### Paragraph bridging pages 37 and 38:

The input monitor means may be provided with means having a function with which, when, within the previously set time from the moment at which the first item of image information for a particular patient is inputted, the input of all the other items of image information concerning the same subject as that represented by the first item of image information for the patient has not been detected, the input of all the items of image information is regarded as detected. Only the items of abnormal pattern detection processing object image information which have been inputted are collectively inputted to the abnormal pattern detection processor means, so that the likelihood of it never being possible to input the image information which is an object of abnormal pattern detection processing to the abnormal pattern detection processor means, when one or more of the items of image information to provide a set is never inputted for some reason, can be eliminated.

### IN THE CLAIMS:

#### Please enter the following amended claims:

1. (Amended) An abnormal pattern detection processing method comprising:

detecting an abnormal pattern in an image, based on inputted image information;

processing the detected abnormal pattern;

correcting the processed abnormal pattern, for each of a plurality of items of the inputted

image information;

relating a result of the processed abnormal pattern to a result of the corrected abnormal pattern, for each of the plurality of items of the inputted image information; and